CLAIMS

We claim:

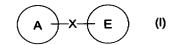
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1. An antifungal agent comprising a compound represented by the formula (I), or a salt or a hydrate thereof:



[wherein A represents a 5- to 10-membered heterocyclic group containing at least one nitrogen atom;

X represents a group represented by the formula -NH-C(=Y)-(CH₂)_n-, a group represented by the formula -C(=Y)-NH-(CH₂)_n-, a group represented by the formula -C(=Z)-(CH₂)_n-, a group represented by the formula -CH₂-NH-(CH₂)_n-, a group represented by the formula -NH-CH₂-(CH₂)_n- or a group represented by the formula -Z-CH₂-(CH₂)_n-;

Y represents an oxygen atom, a sulfur atom or NR^Y (wherein R^Y represents a C_{1-6} alkoxy group or a cyano group);

Z represents an oxygen atom or a sulfur atom;

n represents an integer from 0 to 3;

E represents a furyl group, a thienyl group, a pyrrolyl group, a pyridyl group, a thiazolyl group, a pyrazolyl group or a phenyl group;

with the proviso that A may contain 1 to 3 substituents selected from the following substituent groups a-1 and a-2, and that E has one or two substituents selected from the following substituent groups a-1 and a-2;

<Substituent group a-1>

Substituent group a-1 represents the group consisting of: a halogen atom, a hydroxyl group, a mercapto group, a cyano group, a carboxyl group, an amino group, a

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carbamoyl group, a C₁₋₆ alkyl group, a C₂₋₆ alkenyl group, a C₂₋₆ alkynyl group, a C₃₋₈ cycloalkyl group, a C₆₋₁₀ aryl group, a 5- to 10-membered heterocyclic group, a C₃₋₈ cycloalkyl C_{1-6} alkyl group, a C_{3-8} cycloalkylidene C_{1-6} alkyl group, a C_{6-10} aryl C_{1-6} alkyl group, a 5- to 10-membered heterocyclic C₁₋₆ alkyl group, a C₁₋₆ alkoxy group, a C₂₋₆ alkenyloxy group, a C₂₋₆ alkynyloxy group, a C₃₋₈ cycloalkoxy group, a C₆₋₁₀ aryloxy group, a C_{3-8} cycloalkyl C_{1-6} alkoxy group, a C_{6-10} aryl C_{1-6} alkoxy group, a 5- to 10-membered heterocyclic C₁₋₆ alkoxy group, a C₁₋₆ alkylthio group, a C₂₋₆ alkenylthio group, a C₂₋₆ alkynylthio group, a C₃₋₈ cycloalkylthio group, a C₆₋₁₀ arylthio group, a C_{3-8} cycloalkyl C_{1-6} alkylthio group, a C_{6-10} aryl C_{1-6} alkylthio group, a 5- to 10-membered heterocyclic C₁₋₆ alkylthio group, a mono-C₁₋₆ alkylamino group, a mono-C₂₋₆ alkenylamino group, a mono-C₂₋₆ alkynylamino group, a mono-C₃₋₈ cycloalkylamino group, a mono-C₆₋₁₀ arylamino group, a mono-C₃₋₈ cycloalkyl C₁₋₆ alkylamino group, a mono- C_{6-10} aryl C_{1-6} alkylamino group, a mono-5- to 10-membered heterocyclic C₁₋₆ alkylamino group, a di-C₁₋₆ alkylamino group, a N-C₂₋₆ alkenyl-N-C₁₋₆ alkylamino group, a N-C₂₋₆ alkynyl-N-C₁₋₆ alkylamino group, a N-C₃₋₈ cycloalkyl-N-C₁₋₆ alkylamino group, a N-C₆₋₁₀ aryl-N-C₁₋₆ alkylamino group, a N-C₃₋₈ cycloalkyl $C_{1.6}$ alkyl-N- $C_{1.6}$ alkylamino group, a N- C_{6-10} aryl C_{1-6} alkyl-N- C_{1-6} alkylamino group, a N-5- to 10-membered heterocyclic C₁₋₆ alkyl-N-C₁₋₆ alkylamino group, a C₁₋₆ alkylcarbonyl group, a C₁₋₆ alkoxycarbonyl group, a C₁₋₆ alkylsulfonyl group, a group represented by the formula -C(=N-Ra1)Ra2 (wherein Ra1 represents a hydroxyl group or a C₁₋₆ alkoxy group; R^{a2} represents a C₁₋₆ alkyl group), a C₆₋₁₀ aryloxy C₁₋₆ alkyl group and a 5- to 10-membered heterocycle oxy C₁₋₆ alkyl group;

<Substituent group a-2>

Substituent Group a-2 represents the group consisting of: a C_{1-6} alkyl group, a C_{2-6} alkenyl group, a C_{2-6} alkynyl group, a C_{3-8} cycloalkyl group, a C_{6-10} aryl group, a 5- to

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10-membered heterocyclic group, a C₃₋₈ cycloalkyl C₁₋₆ alkyl group, a C₆₋₁₀ aryl C₁₋₆ alkyl group, a 5- to 10-membered heterocyclic C₁₋₆ alkyl group, a C₁₋₆ alkoxy group, a C_{2-6} alkenyloxy group, a C_{2-6} alkynyloxy group, a C_{3-8} cycloalkoxy group, a C_{6-10} aryloxy group, a C₃₋₈ cycloalkyl C₁₋₆ alkoxy group, a C₆₋₁₀ aryl C₁₋₆ alkoxy group, a 5to 10-membered heterocyclic C₁₋₆ alkoxy group, a C₁₋₆ alkylthio group, a C₂₋₆ alkenylthio group, a C₂₋₆ alkynylthio group, a C₃₋₈ cycloalkylthio group, a C₆₋₁₀ arylthio group, a C₃₋₈ cycloalkyl C₁₋₆ alkylthio group, a C₆₋₁₀ aryl C₁₋₆ alkylthio group, a 5- to 10-membered heterocyclic C₁₋₆ alkylthio group, a mono-C₁₋₆ alkylamino group, a mono-C₂₋₆ alkenylamino group, a mono-C₂₋₆ alkynylamino group, a mono-C₃₋₈ cycloalkylamino group, a mono-C₆₋₁₀ arylamino group, a mono-C₃₋₈ cycloalkyl C₁₋₆ alkylamino group, a mono- C_{6-10} aryl C_{1-6} alkylamino group, a mono-5- to 10-membered heterocyclic C₁₋₆ alkylamino group, a di-C₁₋₆ alkylamino group, a N-C₂₋₆ alkenyl-N-C₁₋₆ alkylamino group, a N-C₂₋₆ alkynyl-N-C₁₋₆ alkylamino group, a N-C₃₋₈ cycloalkyl-N-C₁₋₆ alkylamino group, a N-C₆₋₁₀ aryl-N-C₁₋₆ alkylamino group, a N-C₃₋₈ cycloalkyl C₁₋₆ alkyl-N-C₁₋₆ alkylamino group, a N-C₆₋₁₀ aryl C₁₋₆ alkyl-N-C₁₋₆ alkylamino group, a N-5- to 10-membered heterocyclic C₁₋₆ alkyl-N-C₁₋₆ alkylamino group, a C₆₋₁₀ aryloxy-C₁₋₆ alkyl group and a 5- to 10-membered heterocycle oxy C₁₋₆ alkyl group;

with the proviso that each group described in the substituent group a-2 has 1 to 3 substituents selected from the following substituent group b;

<Substituent group b>

Substituent group b represents the group consisting of: a halogen atom, a hydroxyl group, a mercapto group, a cyano group, a carboxyl group, an amino group, a carbamoyl group, a nitro group, a C₁₋₆ alkyl group, a C₃₋₈ cycloalkyl group, a C₆₋₁₀ aryl group, a 5- to 10-membered heterocyclic group, a C₁₋₆ alkoxy group, a C₆₋₁₀ aryloxy

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group, a 5- to 10-membered heterocycle oxy group, a C_{1-6} alkylcarbonyl group, a C_{1-6} alkoxycarbonyl group, a C_{1-6} alkylsulfonyl group, a trifluoromethyl group, a trifluoromethyl group, a trifluoromethoxy group, a mono- C_{1-6} alkylamino group, a di- C_{1-6} alkylamino group, a mono- C_{6-10} arylamino group which may have one amino group or aminosulfonyl group and a N- C_{6-10} aryl C_{1-6} alkyl-N- C_{1-6} alkylamino group which may have one amino group].

- 2. The antifungal agent according to Claim 1, wherein X represents a group represented by the formula -NH-C(=Y)-CH₂-, a group represented by the formula -C(=Y)-NH-CH₂-, a group represented by the formula -CH₂-NH- or a group represented by the formula -NH-CH₂- (wherein Y has the same meaning as defined above).
- 3. A compound represented by the formula (I-a), or a salt or a hydrate thereof:

$$A^1$$
- X^1 - CH_2 - E (I-a)

[wherein A¹ represents a 3-pyridyl group, a pyrazinyl group, a pyrimidinyl group, a pyrazolyl group, a quinolyl group, an isoquinolyl group, a naphthyldinyl group, a quinoxalinyl group, a cinnolinyl group, a quinazolinyl group, an imidazopyridyl group, a benzothiazolyl group, a benzoxazolyl group, a benzimidazolyl group, an indolyl group, a pyrrolopyridyl group, a thienopyridyl group, a furopyridyl group, a 2,3-dihydro-1*H*-pyrrolo[2,3-b]-pyridin-5-yl group or a benzothiadiazolyl group;

 X^1 represents a group represented by the formula -NH-C(= Y^1)- or a group represented by the formula -C(= Y^1)-NH-;

 Y^1 represents an oxygen atom, a sulfur atom or NR^{Y1} (wherein R^{Y1} represents a C_{1-6} alkoxy group or a cyano group);

E represents a furyl group, a thienyl group, a pyrrolyl group, a pyridyl group, a tetrazolyl group, a thiazolyl group, a pyrazolyl group or a phenyl group;

with the proviso that A¹ may contain 1 to 3 substituents selected from the substituent groups a-1 and a-2 as defined above, and that E has 1 or 2 substituents selected from the substituent groups a-1 and a-2 defined above]

[with the proviso that (1) a compound in which E represents a group represented by the formula:

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(wherein R^{A1} represents a phenyl group having a halogen atom, a methoxy group, an ethoxy group, a C₁₋₆ alkoxycarbonyl group or a carboxyl group),

(2) a compound in which E represents a group represented by the formula:

(wherein R^{A2} represents a halogen atom or a methoxy group; R^{A3} represents a C_{1-6} alkyl group having a carboxyl group, a C_{3-8} cycloalkyl group having a carboxyl group or a phenyl group having a carboxyl group),

(3) a compound in which A¹ represents a group represented by the formula:

(wherein R^{A4} represents a hydrogen atom or a halogen atom; Ar represents a phenyl group which may have a substituent) and X¹ represents a group represented by the

formula -C(=O)-NH-,

(4) a compound in which A¹ represents a group represented by the formula:

(wherein R^{A5} represents a hydrogen atom, a C_{1-6} alkyl group or a trifluoromethyl group; R^{A6} represents a hydrogen atom or a trifluoromethyl group; Ar^2 represents a phenyl group which may have a substituent) and X^1 represents a group represented by the formula -C(=O)-NH- and

(5) a compound in which A¹ represents a group represented by the formula:

(wherein R^{A7} represents a hydrogen atom, a halogen atom or a C_{1-6} alkyl group; Ar^3 represents a phenyl group which may have a substituent) and X^1 represents a group represented by the formula -C(=O)-NH-or a group represented by the formula -NH-C(=O)- are excluded].

- 4. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A¹ represents a 3-pyridyl group, a quinolyl group, a naphthyldinyl group, a quinoxalinyl group, an imidazopyridyl group, a benzothiazolyl group, a pyrrolopyridyl group, a thienopyridyl group or a furopyridyl group (with the proviso that A¹ may have 1 to 3 substituents selected from the substituent groups a-1 and a-2 defined above).
- 5. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A^1 represents a 3-pyridyl group (with the proviso that A^1 may have 1 to 3

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substituents selected from the following substituent groups c-1 and c-2);

<Substituent group c-1>

Substituent group c-1 represents the group consisting of: a halogen atom, an amino group, a C₁₋₆ alkyl group, a C₂₋₆ alkenyl group, a C₂₋₆ alkynyl group, a C₃₋₈ cycloalkyl group, a C₆₋₁₀ aryl group, a 5- to 10-membered heterocyclic group, a C₃₋₈ cycloalkyl C₁₋₆ alkyl group, a C₆₋₁₀ aryl C₁₋₆ alkyl group, a 5- to 10-membered heterocyclic C₁₋₆ alkyl group, a C₁₋₆ alkoxy group, a C₂₋₆ alkenyloxy group, a C₂₋₆ alkynyloxy group, a C₃₋₈ cycloalkyl C₁₋₆ alkoxy group, a C₆₋₁₀ aryl C₁₋₆ alkoxy group, a 5- to 10-membered heterocyclic C₁₋₆ alkoxy group, a mono-C₁₋₆ alkylamino group, a mono-C₂₋₆ alkynylamino group, a mono-C₃₋₈ cycloalkylamino group, a mono-C₆₋₁₀ arylamino group, a mono-C₃₋₈ cycloalkyl C₁₋₆ alkylamino group, a mono-C₆₋₁₀ aryl C₁₋₆ alkylamino group, a mono-5- to 10-membered heterocyclic C₁₋₆ alkylamino group, a C₁₋₆ alkylamino group, a mono-5- to 10-membered heterocyclic C₁₋₆ alkylamino group, a C₁₋₆ alkylamino group and a group represented by the formula -C(=N-OH)R³² (wherein R³² has the same meaning as defined above);

<Substituent group c-2>

Substituent group c-2 represents the group consisting of: a C₁₋₆ alkyl group, a C₂₋₆ alkenyl group, a C₂₋₆ alkynyl group, a C₃₋₈ cycloalkyl group, a C₆₋₁₀ aryl group, a 5- to 10-membered heterocyclic group, a C₃₋₈ cycloalkyl C₁₋₆ alkyl group, a C₆₋₁₀ aryl C₁₋₆ alkyl group, a 5- to 10-membered heterocyclic C₁₋₆ alkyl group, a C₁₋₆ alkoxy group, a C₂₋₆ alkenyloxy group, a C₂₋₆ alkynyloxy group, a C₃₋₈ cycloalkyl C₁₋₆ alkoxy group, C₆₋₁₀ aryl C₁₋₆ alkoxy group, a 5- to 10-membered heterocyclic C₁₋₆ alkoxy group, a mono-C₁₋₆ alkylamino group, a mono-C₂₋₆ alkenylamino group, a mono-C₂₋₆ alkynylamino group, a mono-C₃₋₈ cycloalkyl C₁₋₆ alkylamino group, a mono-C₆₋₁₀ arylamino group, a mono-C₃₋₈ cycloalkyl C₁₋₆ alkylamino group, a mono-C₆₋₁₀ aryl C₁₋₆ alkylamino group and a mono-5- to 10-membered heterocyclic C₁₋₆ alkylamino group;

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with the proviso that each group described in substituent group c-2 has 1 to 3 substituents selected from the following substituent group d;

<Substituent group d>

Substituent group d represents the group consisting of: a halogen atom, a hydroxyl group, a carboxyl group, an amino group, a carbamoyl group, a C₁₋₆ alkoxy group, a mono-C₁₋₆ alkylamino group, a di-C₁₋₆ alkylamino group, a mono-C₆₋₁₀ arylamino group that may have one amino group or aminosulfonyl group, a N-C₆₋₁₀ aryl C₁₋₆ alkyl-N-C₁₋₆ alkylamino group which may have one amino group, a cyano group, a C₆₋₁₀ aryl group, a 5- to 10-membered heterocyclic group and a C₁₋₆ alkoxycarbonyl group.

6. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A¹ represents a group represented by the formula:

15 [wherein R¹, R² and R³ may be the same as or different from each other and represent a substituent selected from the substituent groups c-1 and c-2 defined above].

7. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A¹ represents a group represented by the formula:

$$\mathbb{R}^1$$
 \mathbb{N} \mathbb{N} \mathbb{R}^6 or \mathbb{R}^7 \mathbb{N} \mathbb{R}^2

[wherein R¹ and R² have the same meanings as defined above, respectively; R⁶ and

R⁷ may be the same or different from each other and represent a hydrogen atom, a C₁₋₆ alkyl group, a C₃₋₈ cycloalkyl group or a group represented by the formula -CHR⁸-(CH₂)_{n1}-R⁹ (wherein R⁸ represents a hydrogen atom, a carboxyl group or a C₁₋₆ alkoxycarbonyl group; R⁹ represents a hydroxyl group, a carboxyl group, a thienyl group, a pyrrolyl group, a pyridyl group, a triazolyl group, a tetrahydrofuryl group, a C₁₋₆ alkoxy group, a C₁₋₆ alkoxycarbonyl group, a mono-C₁₋₆ alkylamino group, a di-C₁₋₆ alkylamino group, a phenyl group which may have 1 to 3 substituents selected from the substituent group d defined above, a mono-C₆₋₁₀ arylamino group which may have one amino group or an N-C₆₋₁₀ aryl C₁₋₆ alkyl-N-C₁₋₆ alkylamino group which may have one amino group; n1 represents an integer from 0 to 3)].

8. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A¹ represents a group represented by the formula:

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(wherein R^{11} represents a hydrogen atom or a group represented by the formula $-CHR^{12}$ - $(CH_2)_{n2}$ - R^{13} (wherein R^{12} represents a hydrogen atom or a carboxyl group; R^{13} represents a carboxyl group or a phenyl group which may have 1 to 3 substituents selected from the substituent group d defined above; n2 represents an integer from 0 to 3)).

9. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A¹ represents a group represented by the formula:

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(wherein R¹⁴ represents a C₁₋₆ alkyl group having one C₁₋₆ alkoxy group).

- 10. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A¹ represents a 6-quinolyl group, a [1,5]naphthylidin-2-yl group, a 6-quinoxalinyl group, an imidazo[1,2-a]pyridin-6-yl group, a benzothiazol-6-yl group, a 1*H*-pyrrolo[2,3-b]pyridin-5-yl group, a pyrrolo[3,2-b]pyridin-1-yl group, a thieno[2,3-b]pyridin-5-yl group, a thieno[3,2-b]pyridin-6-yl group or a furo[3,2-b]pyridin-6-yl group (with the proviso that A¹ may have 1 to 3 substituents selected from the substituent groups c-1 and c-2 defined above).
 - 11. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A¹ represents a 6-quinolyl group, a [1,5]naphthylidin-2-yl group, a 6-quinoxalinyl group, an imidazo[1,2-a]pyridin-6-yl group, a benzothiazol-6-yl group, a pyrrolo[3,2-b]pyridin-1-yl group, a 1*H*-pyrrolo[2,3-b]pyridin-5-yl group which may have one amino group, a thieno[2,3-b]pyridin-5-yl group which may have one amino group or furo[3,2-b]pyridin-6-yl group which may have one amino group.
 - 12. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A¹ represents a 6-quinolyl group.
 - 13. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A¹ represents a [1,5]naphthylidin-2-yl group.

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- 14. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A¹ represents an imidazo[1,2-a]pyridin-6-yl group.
- 15. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A¹ represents a benzothiazol-6-yl group.
- 16. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A¹ represents a 3-pyridyl group, a pyrazinyl group, a pyrimidinyl group, a quinolyl group, an isoquinolyl group, a naphthyldinyl group, a quinoxalinyl group, a cinnolinyl group, a quinazolinyl group, an imidazopyridyl group, a benzothiazolyl group, a benzoxazolyl group, a benzimidazolyl group, an indolyl group, a furopyridyl group, pyrrolopyridyl group, thienopyridyl group, а а 2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-5-yl group or a benzothiadiazolyl group (with the proviso that A1 may have 1 to 3 substituents selected from the substituent groups a-1 and a-2 defined above).
- 17. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A¹ represents a 3-pyridyl group, a pyrazinyl group, a pyrimidinyl group, a quinolyl group, an isoquinolyl group, a naphthyldinyl group, a quinoxalinyl group, a cinnolinyl group, a quinazolinyl group, an imidazopyridyl group, a benzothiazolyl group, a benzoxazolyl group, a benzimidazolyl group, an indolyl group, a thienopyridyl а furopyridyl group, pyrrolopyridyl group, а group, а 2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-5-yl group or a benzothiadiazolyl group (with the proviso that A1 may have 1 to 3 substituents selected from the substituent groups c-1

and c-2 defined above).

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18. The compound according to Claim 3, or the salt or the hydrate thereof, wherein A¹ represents a 3-pyridyl group, a pyrazinyl group, a pyrimidinyl group, a quinolyl group, an isoquinolyl group, a naphthyldinyl group, a quinoxalinyl group, a cinnolinyl group, a quinazolinyl group, an imidazopyridyl group, a benzothiazolyl group, a benzoxazolyl group, a benzimidazolyl group, an indolyl group, a pyrrolopyridyl group, a thienopyridyl group, a furopyridyl group, a 2,3-dihydro-1*H*-pyrrolo[2,3-b]pyridin-5-yl group or a benzothiadiazolyl group (with the proviso that A¹ may have 1 to 3 substituents selected from the following substituent groups c'-1 and c'-2);

<Substituent group c'-1>

Substituent group c'-1 represents the group consisting of: an amino group, a C_{1-6} alkyl group and a mono- C_{1-6} alkylamino group; and

<Substituent group c'-2>

Substituent group c'-2 represents the group consisting of: a C_{1-6} alkyl group and a mono- C_{1-6} alkylamino group;

with the proviso that each group described in substituent group c'-2 has 1 to 3 substituents selected from the following substituent group d';

<Substituent group d'>

Substituent group d' represents the group consisting of: a halogen atom, a hydroxyl group, a cyano group, a carboxyl group and a C₁₋₆ alkoxy group.

19. The compound according to any one of Claims 3 to 18, or the salt or the hydrate thereof, wherein X¹ represents a group represented by the formula

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-C(=O)-NH- or a group represented by the formula -NH-C(=O)-.

- 20. The compound according to any one of Claims 3 to 18, or the salt or the hydrate thereof, wherein X^1 represents a group represented by the formula -C(=O)-NH-.
- 21. The compound according to any one of Claims 3 to 20, or the salt or the hydrate thereof, wherein E represents a furyl group, a thienyl group, a pyrrolyl group, a phenyl group or pyridyl group (with the proviso that E has 1 or 2 substituents selected from the substituent groups a-1 and a-2 defined above).
- 22. The compound according to any one of Claims 3 to 20, or the salt or the hydrate thereof, wherein E represents a furyl group, a thienyl group, a pyrrolyl group, a phenyl group or pyridyl group (with the proviso that E has 1 or 2 substituents selected from the following substituent groups e-1 and e-2);

<Substituent group e-1>

Substituent group e-1 represents the group consisting of: a halogen atom, a hydroxyl group, a C₁₋₆ alkyl group, a C₂₋₆ alkenyl group, a C₂₋₆ alkynyl group, a C₆₋₁₀ aryl group, a C₃₋₈ cycloalkyl C₁₋₆ alkyl group, a C₃₋₈ cycloalkylidene C₁₋₆ alkyl group, a C₆₋₁₀ aryl C₁₋₆ alkyl group, 5- to 10-membered heterocyclic C₁₋₆ alkyl group, a C₁₋₆ alkoxy group, a C₂₋₆ alkenyloxy group, a C₂₋₆ alkynyloxy group, a C₆₋₁₀ aryloxy group, a C₃₋₈ cycloalkyl C₁₋₆ alkoxy group, a C₆₋₁₀ aryl C₁₋₆ alkoxy group, a 5- to 10-membered heterocyclic C₁₋₆ alkoxy group, a C₆₋₁₀ aryl thio group, a C₆₋₁₀ aryl C₁₋₆ alkylthio group, a mono-C₆₋₁₀ arylamino group, a mono-C₆₋₁₀ aryl C₁₋₆ alkylamino group, a N-C₆₋₁₀ aryl-N-C₁₋₆ alkylamino group, a N-C₆₋₁₀ aryl-N-C₁₋₆ alkylamino group, a C₆₋₁₀

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aryloxy C₁₋₆ alkyl group and a 5- to 10-membered heterocycle oxy C₁₋₆ alkyl group;

<Substituent group e-2>

Substituent group e-2 represents the group consisting of: a $C_{1.6}$ alkyl group, a $C_{2.6}$ alkenyl group, a $C_{2.6}$ alkynyl group, a $C_{6.10}$ aryl group, a $C_{3.8}$ cycloalkyl $C_{1.6}$ alkyl group, a $C_{6.10}$ aryl $C_{1.6}$ alkyl group, a $C_{6.10}$ aryl $C_{1.6}$ alkyl group, a $C_{1.6}$ alkoxy group, a $C_{2.6}$ alkenyloxy group, a $C_{2.6}$ alkynyloxy group, a $C_{6.10}$ aryloxy group, a $C_{3.8}$ cycloalkyl $C_{1.6}$ alkoxy group, a $C_{6.10}$ aryl $C_{1.6}$ alkoxy group, 5- to 10-membered heterocycle- $C_{1.6}$ alkoxy group, a $C_{6.10}$ arylthio group, a $C_{6.10}$ aryl $C_{1.6}$ alkylamino group, a mono- $C_{6.10}$ aryl- $C_{1.6}$ alkylamino group, a $C_{6.10}$ aryloxy $C_{1.6}$ alkyl group and a 5- to 10-membered heterocycle oxy $C_{1.6}$ alkyl group;

with the proviso that each group described in substituent group e-2 has 1 to 3 substituents selected from the following substituent group f;

<Substituent group f>

Substituent group f represents the group consisting of: a halogen atom, a hydroxyl group, a cyano group, an amino group, a nitro group, a C_{3-8} cycloalkyl group, a C_{1-6} alkoxy group, a C_{6-10} aryloxy group, a 5- to 10-membered heterocycle oxy group, a C_{1-6} alkylcarbonyl group, a C_{1-6} alkoxycarbonyl group, a C_{1-6} alkylsulfonyl group, a mono- C_{6-10} arylamino group, a trifluoromethyl group, a trifluoromethoxy group and a C_{1-6} alkyl group.

23. The compound according to any one of Claims 3 to 20, or the salt or the hydrate thereof, wherein E represents a furyl group, a thienyl group, a pyrrolyl group, a phenyl group or a pyridyl group (with the proviso that E has one substituent

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selected from the following substituent groups g-1 and g-2);

<Substituent group g-1>

Substituent group g-1 represents the group consisting of: a C_{3-8} cycloalkyl C_{1-6} alkyl group, a phenyl C_{1-6} alkyl group, a furyl C_{1-6} alkyl group, a thienyl C_{1-6} alkyl group, a benzofuryl C_{1-6} alkyl group, a benzothienyl C_{1-6} alkyl group, a C_{1-6} alkoxy group, a phenoxy group, a C_{3-8} cycloalkyl C_{1-6} alkoxy group, a phenyl C_{1-6} alkoxy group, a furyl C_{1-6} alkoxy group, a thienyl C_{1-6} alkoxy group, a pyridyl C_{1-6} alkoxy group, a phenoxy C_{1-6} alkyl group and a pyridyloxy C_{1-6} alkyl group;

<Substituent group g-2>

Substituent group g-2 represents the group consisting of: a C₃₋₈ cycloalkyl C₁₋₆ alkyl group, a phenyl C₁₋₆ alkyl group, a furyl C₁₋₆ alkyl group, a thienyl C₁₋₆ alkyl group, a benzofuryl C₁₋₆ alkyl group, a benzothienyl C₁₋₆ alkyl group, a C₁₋₆ alkoxy group, a phenoxy group, a C₃₋₈ cycloalkyl C₁₋₆ alkoxy group, a phenyl C₁₋₆ alkoxy group, a furyl C₁₋₆ alkoxy group, a thienyl C₁₋₆ alkoxy group, a pyridyl C₁₋₆ alkoxy group, a phenoxy C₁₋₆ alkyl group and a pyridyloxy C₁₋₆ alkyl group;

with the proviso that each group described in substituent group g-2 has 1 to 3 substituents selected from the following substituent group h;

<Substituent group h>

Substituent group h represents the group consisting of: a halogen atom, a hydroxyl group, a cyano group and a C_{1-6} alkyl group.

24. The compound according to any one of Claims 3 to 20, or the salt or the hydrate thereof, wherein E represents a 2-furyl group, a 2-thienyl group, a 3-pyrrolyl group, a phenyl group, a 2-pyridyl group or 3-pyridyl group (with the proviso that E has one substituent selected from the substituent groups g-1 and g-2 defined above).

25. The compound according to Claim 3, or the salt or the hydrate thereof, wherein X¹ represents a group represented by the formula -C(=O)-NH-, and A¹ represents a group represented by the formula:

(wherein R¹, R² and R³ have the same meanings as defined above, respectively), and E represents a 2-furyl group, a 2-thienyl group, a 3-pyrrolyl group, a phenyl group, a 2-pyridyl group or a 3-pyridyl group (with the proviso that E has one substituent selected from the substituent group g-1 or g-2 defined above).

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26. The compound according to Claim 25, or the salt or the hydrate thereof, wherein A¹ represents a group represented by the formula:

$$R^1$$
 N N R^6 R^7 N N R^2

(wherein R¹, R², R⁶ and R⁷ have the same meanings as defined above, respectively).

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27. The compound according to Claim 25, or the salt or the hydrate thereof, wherein A¹ represents a group represented by the formula:

(wherein R¹¹ has the same meaning as defined above).

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28. The compound according to Claim 25, or the salt or the hydrate thereof,

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wherein A¹ represents a group represented by the formula:

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(wherein R¹⁴ has the same meaning as defined above).

- 29. The compound according to Claim 3, or the salt or the hydrate thereof, wherein X¹ represents a group represented by the formula -C(=O)-NH-, A¹ represents a 6-quinolyl group, a [1,5]naphthylidin-2-yl group, a 6-quinoxalinyl group, an imidazo[1,2-a]pyridin-6-yl group, a benzothiazol-6-yl group, a pyrrolo[3,2-b]pyridin-1-yl group, a 1*H*-pyrrolo[2,3-b]pyridin-5-yl group which may have one amino group, a thieno[2,3-b]pyridin-5-yl group which may have one amino group, a thieno[3,2-b]pyridin-6-yl group which may have one amino group or a furo[3,2-b]pyridin-6-yl group which may have one amino group, and E represents a 2-furyl group, a 2-thienyl group, a 3-pyrrolyl group, a phenyl group or a 2-pyridyl group (with the proviso that E has a substituent selected from the substituent group g-1 or g-2 defined above).
- 30. The compound according to Claim 29, or the salt or the hydrate thereof, wherein A¹ represents a 6-quinolyl group.
- 31. The compound according to Claim 29, or the salt or the hydrate thereof, wherein A¹ represents a [1,5]naphthylidin-2-yl group.
 - 32. The compound according to Claim 29, or the salt or the hydrate thereof, wherein A¹ represents an imidazo[1,2-a]pyridin-6-yl group.

- 33. The compound according to Claim 29, or the salt or the hydrate thereof, wherein A¹ represents a benzothiazol-6-yl group.
- 34. A compound represented by the formula (I-b), or a salt or a hydrate thereof:

$$A^2$$
 X^2 R^{10} (I-b)

[wherein A² represents a 6-quinolyl group, a 4-quinazolinyl group or a pyrido[2,3-d]pyrimidin-4-yl group which may have an amino group;

X² represents a group represented by the formula -O-CH₂-, a group represented by the formula -S-CH₂-, a group represented by the formula -C(=O)-CH₂-, a group represented by the formula -NH-CH₂-or a group represented by the formula -CH₂-NH-;

 R^{10} represents a C_{1-6} alkyl group, a C_{6-10} aryloxy group or a C_{6-10} aryl C_{1-6} alkoxy group].

35. The compound according to Claim 34, or the salt or the hydrate thereof, wherein X² represents a group represented by the formula -NH-CH₂- or a group represented by the formula -CH₂-NH-.

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- 36. A pharmaceutical composition comprising the compound according to Claim 3 or 34, or the salt or the hydrate thereof.
 - 37. An antifungal agent comprising, as an active ingredient, the compound

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according to Claim 3 or 34, or the salt or the hydrate thereof.

- 38. A method for prevention or treatment of fungal infection comprising administering a pharmacologically effective amount of the compound according to Claim 3 or 34, or the salt or the hydrate thereof.
- 39. A use of the compound according to Claim 3 or 34, or the salt or the hydrate thereof, for manufacture of an antifungal agent.
- 40. A method for prevention or treatment of fungal infection comprising administering a pharmacologically effective amount of the antifungal agent according to Claim 1.